Amendments to the title

Please amend the title from "MANAGING STORAGE OF ITEMS ACROSS A NETWORK OF HETEROGENEOUS STORAGE DEVICES" to "AVOIDING DEADLOCK BETWEEN STORAGE ASSIGNMENTS BY DEVICES IN A NETWORK"

Amendments to the Summary of the Invention

Please replace the Summary of the Invention with the following:

The present invention provides a method and system for managing storage of items across a network of heterogeneous storage devices with a view to increasing the overall performance of the network. An intelligent allocation mechanism is embedded on each of the storage devices in the network according to an embodiment of the present invention. The intelligent allocation mechanism detects the occurrence of various storage events on the storage device and uses rules preventing deadlock between storage assignments. The storage event refers to any event that indicates the need for storage assignment of storage devices to items or the need for assignment of items to storage devices.

Once the occurrence of the storage event is detected, the intelligent allocation mechanism obtains input information for the storage devices and the items. In an embodiment, the input information comprises an item metrics set having parameter values for the items and a storage device metrics set having parameter values for the storage devices in the network.

The intelligent allocation mechanism processes the item metrics set and the storage device metrics set based on the type of the storage event to determine a storage assignment. The processing of the item metrics and the storage device metrics may involve determining the suitability of the storage devices for storage of a given item. Conversely the processing of the item metrics and the storage device metrics may involve determining the suitability of the items for storage on a given storage device. The intelligent allocation mechanism thus determines a storage assignment based on item-device suitability. Thereupon, the items are stored on the storage devices in accordance with the storage assignment.